M

Secl. IX-27—100,000—21-5-52.

Dev (1947) Department.

M SERIES.

G.O. No. 4162-

Dated 25-8-47

[Despatch Abstract.]

GROW MORE FOOD : GREEN MANURE TREES AND SHRUBS : MEASURES [illegible] CULTIVATION : SANCTIONED.

M

Dev. (1947) Department

MS SERIES.

G.O. No. 4162

Dated 25-8-47

[Despatch Abstract.]

AGRICULTURE : GROW MORE FOOD : GREEN MANURE TREES AND SHRUBS : MEASURES FOR INTENSIFYING CULTIVATION : SANCTIONED.

GOVERNMENT OF MADRAS
Abstract
**

AGRICULTURE - "Grow More Food" - Green Manure trees and shrubs - Measures for intensifying cultivation - Sanctioned.

- -

Development Department.

G.O. (Ms) No. 4162. Dated, the 25th August 1947
READ - the following:

From the Director of Agriculture, Letter No. E4-997/47 dated the 18th June 1947.

From the Board of Revenue, No. Z.3548/47.5 dated the 14th July 1947.

- - - - - -

ORDER:

With a view to intensify the cultivation of green manure shrubs and trees such as (1) Adathoda (2) Calotropis (3) Wild Indigo (4)Glyricidea (5) Pungam and (6) Malaipoovarasu in and around ryots fields for the green manuring of paddy, the Director of Agriculture has submitted the following proposals:

(1) The Agricultural Department staff and the Village Officers and the village servants should arrange to plant in the first instance seedlings and cuttings of Glyricidea plants in all office compounds, compounds of Chavadis, sub-jails, public works Department Inspection bungalows, schools and colleges, near canals, locks and sluices and in parks maintained by municipalities and panchayats.

(ii) Arrangements should be made for stumps of Malaipoovarasu to be planted near wells and moats and on the bunds of canals and tank-beds.

(iii) Propaganda for raising green manure shrubs and trees should be done in schools, shandies, fairs and festivals and in places where there is considerable gathering of men.

(iv) Weekly reports should be called for from the Revenue Inspectors by the Tahsildars and from the Tahsildars and Deputy Collectors by the Collectors.

(v) Collectors and Revenue Divisional Officers should inspect a few plantings in the course of their tours.

(vi) A prize in the shape of agricultural impelemtns worth about Rs. 10 should be awarded to a ryot who has grown the largest number of plants in each taluk. A rolling cup at a cost of about Rs.25 should be established in each taluk to be awarded at the time of Jamanbandi to the village officer in whose jurisdiction the largest number of shrubs and seedlings are grown and established by his efforts two months before the Jamabandi.

2. The Government accept the proposals of the Director of Agriculture, except item (iv) in paragraph 1 above. They consider that a monthly report should suffice. In respect of item (vi) the Government sanction a total expenditure of Rs. 8,7 50 which should be met from the Collectors' Discretionary Grant.

3. The Government desire that Collectors should control and supervise this drive for increasing the production of green manure leaves which is essential for increasing food production. The drive should be sustained and backed by public enthusiasm. The Revenue and Agricultural Departments should work in close concert in this connection. The most important point for both Departments to observe is the care of seedlings till they attain maturity. The Board of Revenue is requested to issue suitable instructions to Collectors and submit to Government a copy of its instructions together with the form of monthly report to be submitted by Collectors to the Board. The Board is requested to submit a report on the working of the scheme to Government once in six months.

(By order of His Excellency the Governor)

W.R.S. SATTIANADHAN
Secretary to Government.

To all Collect-

To the Director of Agriculture.
To the Board of Revenue.
Copy to the Revenue Department.
Copy to the Accountant-General, through the Finance.

/True copy/

REVENUE DEPARTMENT.

AGRICULTURE - Grow More Food - Green Manure trees and shrubs - Monthly Progress Report - Instructions - Issued.

Station: Madras. Ref. No. Z.3548/47.20. Dated..23rd January 1948

From

C.A. Ramakrishnan, Esq., I.C.S.,
Joint Secretary, Board of Revenue.

V.S. Hejmadi, Esq., I.C.S.,
Commissioner of Civil Supplies and Separate Revenue.

Read - the following:

I. G.O. (Ms) No. 4162 Dev. dated the 25th August 1947
II. Government Memorandum No. 23889-A3/47.1.Dev. dated the 13th December 1947.

REFERENCE:

In pursuance of paragraph 3 of the G.O. cited the Board issued the following instructions to Collectors.

The main points to be emphasised in connection with the green manure comapaggn are the following:

(1) Our province is seriously in deficit in regard to its food requirements.

(2) So far as paddy is concerned, immediate results to grow more of it have to be looked forward to only in the direction of intensive rather than extensive cultivation, because the extension of paddy cultivation means the construction of irrigation works which to be achieved on large scale will necessarily take considerable time.

(3) There is much scope for intensive cultivation of paddy. The yield of paddy per acre in Japan, Spain and Italy is about 6,000 to 7,000 lbs. whereas in India the yield is only 1,600 lbs, or roughly one-fourth of the yield in other countries. The only practical method of increasing the yield is to use more manure. The supply of other kinds of manure like farm yard manure, oil cakes, chemicals etc., are not only very costly, but are very limited. The only type of manure whic can be increased considerably in a short period at low cost is green leaves.

It is possible for a ryot to grow his requirements of green manure himself, and besides, to grow it at or very near his paddy fields so that the problems of transport, etc., are eliminated. Green leaf plants can be grown after the harvest of one crop of paddy and ploughed in before transplantation of the next paddy crop. They can also be grown on the bunds of paddy fields. A copy of the Director of Agricultur's notes on green manuring of paddy is communicated to the Collectors for information and circulation to the Revenue Divisional Officers, Tahsildars and Revenue Inspectors.

The monthly reports to be submitted by Collectors should be in a narrative form with the following headings and they should be submitted by the 15th of succeeding month.

(1) PROPAGANDA. (The number of meetings held by the different kinds of officers, the number of ~~effi~~ persons who attended the meetings and the reaction of the ryots may be reported under this head.)

(2) INSPECTION: (The number of inspections of ryots' fields, agricultural farms etc., made by the different officers should be indicated under this head).

(3) CONCRETE WORK TURNED OUT: The quantity of different kinds of seeds distributed or seedlings planted etc., may be described here. Also the number of acres of paddy land to which green manure was supplied.

(4) FACILITIES PROVIDED: The concrete help rendered by the Agricultural and other departments to the ryots to secure green manure seeds, etc., may be indicated here. The adequacy or otherwise of the stock in the Agricultural Depots, the difficulties, if any, encountered, and the measures adopted to meet those difficulties may also be indicated here.

(5) GROW MORE FOOD: Results achieved. The increase yield of paddy attained as a result of the application of green manure may be dealt with under this head.

(6) SUGGESTIONS AND CONCLUSIONS: Any useful suggestion may be offered here, and a broad conclusions arrived at as to the progress of work done during the month. The personal work of individual officers to be mentioned, if it deserves special notice.

3. XX XX XX

Sd/ for Joint Secretary.

To the Collectors of all District except Madras (~~with~~ paras 1 and 2 only) with a copy of Director of Agriculture's note.)
Copy to the Secretary to Government, Development Department (paras 1 and 2 only)
To the Director of Agriculture.
To the Collectors of ~~Agri~~ Tanjore, Trichinopoly, Madura, Tinnevelly, Vizagapatam, East Godavari, Guntur and Anantapur (para 3 only)

DIRECTOR OF AGRICULTURE'S NOTE.

The principal food crop of the Province is paddy and though it is cultivated in all the districts, the food supply falls short of our requirements. This is because the average yield is LOW, being 1500 lbs. per acre as against 6,000 to 7,000 lbs. obtained in Japan, Spain and Italy. It is not difficult to improve the yield of paddy. For instance in some of the Government Agricultural Research Stations where the yield was formerly about 1,600 - 2,000 lbs. the yield is now 3,000 to 4,000 lbs. per acre.

2. Food can be produced only from the soil and no amount of talking will help us to produce more food. If food supply is to be improved quickly, the soil has to be tackled by manuring. The question of manure supply is therefore indissolubly bound up with the well-being and even the bare existence of our people.

3. The manures commonly applied to paddy fields are farm-yard manure, green leaves, oil cakes, bone-meal, fertilisers like sulphate or phosphate of ammonia, super phosphate etc. But the supply of these is at present limited. The only type of manure which can be increased considerably and that too in a short period is GREEN LEAVES. Exerpiments in the Agricultural Research Stations and on ryots' fields in all districts have proved the universal efficacy of green leaves in improving the yield of paddy. The percentage increase in the yeilds varies from 25 to 45 per cent. A maximum response of 50 per cent was noticed with an application of 6,000 to 7,000 lbs. of leaves in the case of the Circars districts and West Coast soils and 9 to 17 per cent in the Cauvery delta and Coimbatore district. The average dose is about 4,000 lbs or 3 cart-loads of green leaves per acre. It will be seen that every 40 lbs. of green leaves will secure an increase of one Madras Measure of paddy. The more leaves we apply as manure, the more food we produce. The solution sounds so simple; yet the food shortage has been chronic.

4. There are two ways of growing green leaves for use as manure for paddy fields:

(a) The first is to raise a green manure crop like

Pilliposara, Kolinji, (Vempali), Daincha, Sunhemp, Sesbania speciosa etc., on the paddy field after the harvest of paddy and plough it in before transplantation.

Pillipesara thrives well on still soils; Kolinji on light soils; Sunhemp on medium soils, Daincha and Seshabania speciosa on all types of soils. Daincha is also particularly suited to alkaline lands. The seeds of green manure plants are generally sown before harvest of paddy when there is some moisture in the field and the green manure crops thrive on the summer showers where there is no scope for irrigation.

Of the green manure plants, Kolingi has the great advantage of being self-sown after it is once introduced in any area, i.e. when once the crop is established in a paddy field, the Kolinji seeds that scatter from the plant, germinate after the paddy is harvested and therefore there is no need to sow the seeds again in future years. Koilinji grows on waste lands and the seeds can be gathered by village children in their spare moments. It pays to collect the seeds as the price will be raised from Rs. 12 to Rs.18/6/- for a bag of 160 lbs. from 1st December 1947.

Pillipesara and sunnhemp are also greatly valued as cattle fodder Sesbania speciosa will produce a lakh of lbs. of leaves per acre. It decomposes easily in the paddy field, as the stem is pithy and its chief merits lies in the fact that it can thrive under the swampty conditions of the paddy field. When planted along the edges of a paddy field in July at the time of transplantation of paddy, each plant produces about quarter of pounds of seeds by December and a few dozen will produce the seeds required for sowing in an acre by December. The ryot will not therefore be put to the expenses of purchasing the seeds every year.

The seeds of green manure plants are not now available in plenty and this will be the case until the wet land ryots learns to produce on his holding his requirements of seeds even by setting apart a part of his land for this purpose. In order to encourage the production of green manure seeds Madras Government have recently offered a subsidy of Rs.6/8/- on every 160 lbs. of seeds produced.

(b) The second method is to raise quick growing shrubs on the bunds of fields. This will suit all areas and in particular all places where there will not be sufficient interval between the harvest of one crop and the transplantation of another to raise a green manure crop on the field. A quick growing shrub like Glyricidea (Eruthazai in Tamil and Rotta Aakku in Telugu), Adathoda (Addasaram in Telugu), Calotropis (Erukkan in Tamil and Jilledu in Telugu) Leucasea Jatropha (Kottamanukku in Tamil and Nepalem in Telugu) Malapoovarasu (Konda Ganna Ravi in Telugu) may be raised in back yards of houses, village sites, vacant places, sides and roads, along tank and channel bunds. The leaves of most of these are not browsed by cattle and even goats dislike them. The shrubs stand frequent lopping and no trouble is involved in maintaining them except the initial effort in planting a branch or a stump. Various kinds of trees also give abundant supply of leaves, Ilkke Pungam (Nanuga) Odiyam (Gumpena) Vadanarayana etc. But for quick results, the quick growing shrubs may be preferred.

Glyricidea, Leucanoa, etc., are particularly to be recommended these can be raied from small cuttings and are very quick growing and the roots harbour certain types of bacteria which absorb atmospheric nitrogen for the benefit of the host plant. Glyricidea and Leucanena are therefore the poor man's fertiliser factories which go on yielding a more or less balanced manure in the shape of green leaves, in spite of repeated loppings. Each Glyriciddea plant will give 40 lbs. of leaves in the first year and upto 300 lbs. a year after the third year. If Glyricidea is raised on the paddy field bunds the ryot will have his manure on the spot ready for use when he gets water for irrigation. If necessary he may even slightly enlarge narrow bunds in places where the stump is planted. Even if 100 plants are planted on the bunds of a acre of enlarging 9 inches bunds to 2 feet, the extra area encroached on the field will be less than 1/300th of an acre. It is not necessary to plant Glyricidea on all the bunds, as some will be required for use as paths and for other purposes. Leucaena is a thin medium sized tree which has the great merit of possessing a hard wood which can be used for making agricultural implements, for fuel and for house construction In the irrigated areas Leucaena will solve the ryots' fuel problem and

help him to conserve the cattle dung for manuring to fields. Those two shrubs can be raised on paddy field bunds without detriment to the crop

5. It should be realised that unless more leaves are grown more manure cannot be produced and more food will not be forthcoming. The initial effort is not difficult and the gain is enourmous.

6. With abundant supply of organic manures to the fields apply fertilisers without risk to the land. Then only we can hope to get the phenomenal yields obtained in Japan, Spain and Italy. Madras should not lage behind these countries and it need not, provided a Province-wde campagin ias successfully conducted to plant more shrubs and trees. Thees and shrubs can be plnated throughout the year under suitable conditions and it is neven too late to start planting those. Remember that if every ryot plants even one useful plant a day and utilises the leaves for manuring addy fields, there will be no food srarcity next year or thereafter.

M.S. SIVARAMAN
Director of Agriculture.

REVENUE DEPARTMENT

Subject :

AGRICULTURE - Grow More Food - Green Manure trees and shrubs - Draft rules for the award of prizes and Rolling Cup - Communicated

- -

Station: Madras. Ref:No.Z.3548/47.27 Dated the 10th May 1948.

From

Rao Sahib Sri T.K. Sankaravadivelu Pillai, B.A.,
Joint Secretary, Boarde of Revenue.

W.R.S. Sathianathan, Esq., I.C.S.,
Commissioner of Land Revenue and Commercial Taxes.

Read - the following:

G.O. (Ms) No. 4162 Dev. dated the 25th August 1947
Board's Ref: No. Z.3548/47-20 dated 23rd January 1948
Director of Agriculture's Letter EE.I.22/48 dated the 25th April 1948.

--

REFERENCE:

In pursuance of paragraph 3 of the G.O. cited above, a copy of the draft rules to be observed for the award of the prize and rolling cup is forwarded to the Collectors of all districts, except Madras.

2. The Collectors are requested to follow the rules and make the green manure campaign, a thorough success.

Sd/. for Joint Secretary.

To the Collectors of all Districts, except Madras, with a copy of the rules.
Copy to the Secretary to Government, Development Department, with copy of the Draft Rules.
Copy to the Director of Agriculture, Madras, with a copy of Rules.

COPY OF RULES.

Rules governing the award of prize and rolling cup in connection with the green manure scheme - Sanctioned in G.O. (Ms) No. 4162 Dev. dated the 25th August 1947.

1. A prize in the shape of Agricultural implements worth about Rs. 10 will be awarded in each year to a ryot who has grown the largest number of green manure plants in each taluk.

2. The total number of plants which are established (as differentiated from plants planted) will be the basis for award of prizes.

3. The District Agricultural Officer, will collect statistics of green manure trees and shrubs actually established two months before the Agricultural Jamabhandi to be conducted by the Agricultural Officers. The statistics should contain the total number of plants planted in each village and the number of plants established by the effort of the ryot.

4. The species of trees and shrubs which should be reckoned as coming within the purview of G.O. (Ms) No. 4162 Dev. dated the 25th August 1947 and which should be taken into account for the award of prizes by the Agricultural Officers are -

1. Adathoda (Addesaram in Telugu)
2. Calotropis (Erukkam in Tamil and Zilladu in Telugu)
3. Wild Indigo (Vempati in Telugu, Kavalai in Tamil)
4. Glyricidia (Eruthazhai or Ceylon Vagain in Tamil, Tottaku in Telugu)
5. Pungam.
6. Malaippovarasu.

5. The District Agricultural Officer or the Deputy Director of Agriculture will award the prize at the time of the Agricultural Jamabandi proposed to be conducted by the Agricultural Department.

6. A Rolling Cup at a cost of about Rs. 25 will be awarded to the Village Headman in whose jurisdiction the largest number of shrubs and seedlings are grown and established by his efforts. This cup will be with the winner till the next Revenue Jamabandi when he should bring it with him and place it before the Jamabandi Officer on the 1st day of Jamabandi for presentation to the next winner.

7. The Tahsildar of the Taluk will be responsible for suggesting the name of the Village Munsiff who deserves the rolling cup at the time of the Revenue Jamabandi. When suggesting the name of the Village Munsiff eligible for the rolling cup the Tahsildar should take into account the number of shrubs and trees (as laid down in paragraph 3 above) that have been planted and established by his efforts.

8. The Jamabandi Officer will award this rolling cup during the Revenue Jamabandi.

9. A register with the following 4 columns will be maintained in the taluk office for recording the fact of award of the rolling cup by the Jamabandi Officer.

a. Date of award, of the rolling cup/prize
b. Name of village.
c. Name of the Village Headman/Ryot to whom the rolling cup/prize is Awarded.
d. Total number of trees planted and established.
e. Signature of the Jamabandi Officer.

The Tahsildar should make arrangements to produce this register and the rolling cup before the Jamabandi Officer at the time of Jamabandi.

REVENUE DEPARTMENT

Subject

AGRICULTURE - Grow More Food - Green Manure trees and shrubs - Draft Rules for the award of prizes and rolling cup - Amendments issued.

Madras. L.Dis.Z.3011/48 Dated, the 12th July 1948

From

C.A. Ramakrishnan, Esq., I.C.S.,
Joint Secretary, Board of Revenue, Madras.

V.S. Hejmadi, Esq., I.C.S.,
Commissioner of Civil Supplies and Separate Revenue.

Read - 1. Board's Ref: No. Z.3548/47.27 dated 10th May 1948
2. Government Memorandum No.83573-A.III/46.1 dated 5th May 1948
3. Government Memorandum No.56170-A.III/48.1 dated 26th May 1948
4. From the Director of Agriculture, Dis.E.E.1.388/48 dated the 30th June 1948.

- - - - -

L.DIS.

As the Government have decided to defer the for the present, the question of conducting Jamabandi by the Agricultural Department, the Board issues in consultation with the Director of Agriculture, the following amendments to the rules governing the award of prizes and rolling cups, communicated to the Collectors in its reference first cited above:

Rule 3: Omit the words "before the Agricultural Jamabandi to be conducted by the Agricultural Officer"

Rule 4: Omit the words "by the Agricultural Officers."

Rule 5: Substitute the following for the existing rule:
"The District Agricultural Officer will communicate the statitics to the Taluk Office for being placed before the Revenue Jamabandi Officer for the award of the prizes in the shape of agricultural implements at the time of Jamabandi."

2. The Collectors of all districts except Madras are requested to follow the revised instructions.

Sd/. for Joint Secretary.

To the Collectors of all Districts, except Madras.
Copy to the Director of Agriculture, Madras.
Copy submitted to the Secretary to Government, Development Department, Madras.

GOVERNMENT OF MADRAS
Development Department.

Memorandum No. 77675-A.III/48.2 dated the 13th August 1948.

Sub: AGRICULTURE - Green Manure Campaign - Report for June 1948 - Suggestions by Collectors.
Ref: From the Collector of Cuddapah, No.6936/48 dated 15th July 1948
From the Collector of Vizagapatam, No.1049/48 dated the 12th July 1948.

The attention of the Director of Agriculture is invited to the suggestion made by the Collector of Cuddapah in the last paragraph of his report cited, a copy of which has been sent to him direct and he is requested to take necessary action in the matter.

2. The attention of the Board of Revenue and the Director of Agriculture is invited to the suggestion made by the Collector of Vizagapatam in paragraph 6 of his report cited regarding cash rewards to Village Officers, and they are requested to offer their remarks on the suggestion urgently. The Director of Agriculture is requested to submit his reply through the Board of Revenue and the Board is requested to send a consolidated reply.

C.V. NARASIMHAN
Deputy Secretary to the Government.

REVENUE DEPARTMENT
Subject.
AGRICULTURE - Green Manure Campaign - Awarding of cash prizes - Board's remarks - Submitted.

Station: Madras. L.Dis.Z.4663/48 Dated the 30th October 1948

From

C.A. Ramakrishnan, Esq., I.C.S.,
Joint Secretary, Board of Revenue.

V.S. Hejmadi, Esq., I.C.S.,
Commissioner of Civil Supplies and Separate Revenue

Read: 1. G.O. (Ms) No. 4162 Dev. dated the 25th August 1947
2. From the Government Development Memorandum No.77675-A.III/48.2 dated the 13th August 1948.
3. From the Director of Agriculture, Madras, L.Dis.488/48 dated the 8th September 1948.

L.DIS.

Submitted to the Government.

2. The Collector of Vizagapatam has suggested in paragraph 6 of his letter No. 1049/48 dated 12th July 1948 that cash rewards may be granted to the Village Officers in whose villages the largest number of trees are planted during the Tree Planting Week. The Director of Agriculture is not in favour of the Collector's suggestion, as he thinks that the presentation of rolling cups will be more graceful than the award of cash prizes.

3. The Board considers that the main point to stress about tree planing is that unless the trees became established, the results will not be assured. It is the co-operation of the ryots that matters and it is doubtful whether the award of cash prizes or even rolling cups to Village Officers will ensure this objective The Board suggests that the question of awarding cash prizes for tree planing may be deferred till some experience is gained in the scheme of awarding the rolling cups in connection with the Green Manure Campaign, sanctioned in G.O. (Ms) No.4163 Dev. dated the 25th August 1947.

Sd/. for Joint Secretary.

To the Secretary to Government, Development Department,
Copy to the Director of Agriculture, Madras.

Copy of Director of Agriculture's Letter L.Dis.488/48 dated the 8th September 1948.

Sub: AGRICULTURE - Green Manure Campaign - Report for June 1948 - Suggestions by Collectors.
Ref: Memorandum No.77675-A.III/48.2 dated 13th August 1948 of the Government of Madras, Development Department.

With reference to paragraph 2 of the Government Memorandum cited above, I have to state that I do not agree with the suggestion made by the Collector of Vizagapatam. It is not good eo give cash pizzes and I consider that the presentation of rolling cups is more graceful.

Sd/. C. VIJAYARAGHAVAN
for Director of Agriculture.

GOVERNMENT OF MADRAS
Development Department.

Memorandum No. 93800-A.III/48.1 dated the 1st December 1948.

Sub: AGRICULTURE - ~~Grow More~~ Green Manure Campaign - Awarding of cash prizes Suggestion by the Collector of Vizagapatam - Negatived.

Ref: Government Memorandum No. 77675-A.III/48.2 dated 13th August 1948
From the Director of Agriculture, L.Dis. No. 488/48 dated the 8th September 1948.
From the Board of Revenue, L.Dis. Z.4663/48 dated the 29th October 1948.

A copy of the letter from the Director of Agriculture and the Board of Revenue cited above is communicated to the Collector of Vizagapatam in continuation of the Government Memorandum cited. The Government agree with the Board's suggestion made in paragraph 3 of its letter.

W.R.S. SATTIANATHAN
Secretary to Government.

To the Collector of Vizagapatam (with enclosure)
Copy to the Board of Revenue.
Copy to the Director of Agriculture.

/True copy/

7.4.54.

Office Assistant,
Madras Record Office, Egmore, Madras.

Sk.